

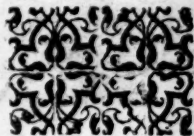
A
DISCOVRSE
CONCERNING
THE DRAYNING
OF FENNES AND
SVRROVNDSD GROVND

in the sixe Counteys of *Norfolke,*
Suffolke, Cambridge with the Isle of
Ely, Huntington, Northampton,
and Lincolne.

Rob:

By H.C.

Burton



Printed at London,

1629.

32



The Printer to the Reader.

CEntle Reader, This discourse came vnto my hands not long since from a well-willer to the businesse therein treated of; and I hearing that the Fennie-Countreys are at this time more then ordinarily ouerflowne, haue thought fit to publish the same, if haply it may perswade such as are interested, to set forward the worke of drayning which would be both honorable and profitable to the Common-wealth, as I conceiue.





A
Discourse concerning
the drayning of the
Fennes.



Concerning the drayning of the Fennes in the
fixe Countie of *Norfolke*, *Suffolke*, *Cam-*
bridge with the Isle of *Ely*, *Huntington*,
Northampton, and *Lincolne*, as well on this
side *Boston* as beyond, there arise three maine
questions. The first, whether it would be
honorable and profitable to the King, and
Common-wealth in generall, and to those
Countreys in particular, if it might be effe-
cted. The second, whether it be Feasable.

The third, how a compitent reward may be apportioned for them that
should vndertake so great a worke.

For the first, the first argument shall be the counsell and care of the
State in euerie age since this Kingdome began to be improued, appearing
by the many Acts of Parliament concerning this businesse, as against
Weares, Gorges, Stankes, &c. begun the 9. of *H. 3.* iterated the 25. of
Ed. 1. augmented the 25. and 45. of *Ed. 3.* the 21. of *Rich. 2.* the 1. and
4. of *H. 4.* And at length more distinctly the 12. of *Ed. 4.* But in all
these times by reason of the turbulent condition of the State at home
and abroad, the prosecution of this businesse was either altogether fore

A discourse concerning

slowd, or so snatchingly persued, that little fruit came thereof: But in the peaceable time of King *Henry* the 8. who was the first great Improver, and in whose time the mischief was growne to a great height, a settled course of Commission of Sewers was established, with a verie endlesse power, such as hath neither length nor breadth, against offenders, (it is the word of the Statute not onely against the fore-named inconveniences, but now for the maintenance and increase of Walls, Ditches, Bankes, Gutters, Sewers, Goates, Caulcies, Bridges, Streames and other defences against inundations: by which verie names of things in the former Acts not mentioned it doth appeare how the mischief was growne almost past remedy before any sufficient prouision was publicly made for redresse. Yea, although the Lawes of Sewers were ordained like Acts of Parliament, not examinable by any other authoritie, as being the most absolute that passeth vnder the great Scale of *England*, (such was my Lord *Pophams* iudgement) yet so bootlesse seemed the labour vnto the Countries afflicted, that the wisdom of the whole Common-wealth thought fit to provide an other Act two yeeres after to constrain the Gentlemen of the Countrey vnder paine and forfeiture to take the oath of a Commission of Sewers as they should be thereunto designed. In this time also that royall Lady *Margaret*, Countesse of *Richmond*, procured an admeasurement and diuision of all the surrounded grounds on the North side of *Spalding*, which before that time lay promiscuously. This was a great worke, and of excellent vse, not for those times onely, but the fruit of it hath continued euer since, euen vnto these dayes, and will be a great guid in this drayning businesse whensoever it is vndertaken. Neither did that royall Lady rest in this, but she set her selfe amongst the Commissioners of Sewers, yea, and set her hand to the verie worke of drayning, and indeed, hit vpon the right way: but in her worke there were some notable errors (the world not being then so skilfull) which being followed by the neglect of the Countrey, in time forfeited her gracious intention. After her stood vp *John* of *Gaunt*, Duke of *Lancaster*, and tooke great paines to perfect what she had begun: He went into the Countrey in person, and employed all his authoritie in it; but because the Countrey should haue borne the charge, when he was once passed on to *Torke*, nothing went forward that hee had proiected, notwithstanding his many Letters, and increpations. In the 3. of *Ed: 6.* the Commission of Sewers was made perpetuall, which by the former Statute of *H: 8.* was to endure but twentie yeeres, and in the 13. of *Eliz.* it was enacted that euery particular Commission of Sewers should continue for ten yeeres,

the drayning of the Fennes.

yeeres, which before was limited to five; and that in the interim betwene the determining of one Commission, and the Awarding of another, the Iustices of the Peace might execute the Commission of Sewers for a whole yeere. After that by these provisions and presidents mens wits were a little set on worke, in the 29. of *El.* some Gentlemen vnder-tooke the recouerie of the Marishes of *Erith, Lesnes and Plumstead*, for whose encouagement a Statute was made, *That they should haue the moye-tie of all such gained Lands, and an eighth part of the other moyetie, and hold it of the Queene as of the Mannor of East-Greenwich in Socage by Fealtie, paying a pennie an Acre yeerely, and no Tyth for seven yeeres.* This Act of Parliament encouraged many men to vndertake also in the Isle of *Ely*, and the Countreys conning, and that with approbation of the State, because (saith the Statute) *such Approuement will be a great and inestimable benefit to her Maiestie, her Heires and Successors, disburthening her Highnesse of many chargeable Bankes, and workes of Sewers in those surrounded grounds, and in the increase of many able Subiects by habitations being there erected, and in like sort, profitable to many her Highnesse Subiects, both bodies Politike, as Corporate, who haue estate of inheritance, and other interest within the same.* The same also was the opinion of the State in the fourth of King *Iames* his raigne, when the Parliament passed an Act for the vndertaking of *Francis Tindall, Henry Far, and Iohn Cooper* in the Isle of *Ely*, which Act gaue them two parts of the Land so to be inned and drayned, and immunitie of Tyth for seven yeeres after those seven yeeres which were allotted to them to doe their worke in. To speake nothing of the improuement of *Marsh-Land, Waldersey*, the Londoners proportion, and diuers others, which though they remaine chargeable to the owners, because the generall drayning is not effected, yet doe they yeeld so great an improuement, as well witnesse how abundant it would be if those charges by a generall drayning were preuented.

But if any man beside this Argument taken from the consent of so many ages, wise and politike Princes and assemblies of Parliament, doe desire to be led into those particulars whereby it is probable they were moued, let him consider, First, the costly and troublesome meetings of the Commissioners of Sewers; Griuous (though necessarie) Taxations, Hartburnings, Emulations, Controuersies, and insupportable charges, for cutting, cleansing and repaying of Riuers, Draynes, Goates, Sluces, Bankes, and such like costly workes of Sewers, so much to be lamented, so impossible to be any other wayes preuented, then by a generall drayning of the seuerall Leuels wherein those Lands respectiue doe lye.

A discourse concerning

Next, it would be remembred, that in winter, when the Ice is stronge enough to hinder the passage of Boates, and yet not able to beare a man, the Inhabitants vpon the Hards, and the Bankes within the Fennes, can haue no helpe of Food, no comfort for Body or Soule, no Woman ayd in her Trauell; no meanes to baptize a Child or to administer the Communion, no supply of any necessitie, sauing what those poore desolate places can afford. Moreouer, it hath beene the policie of this State to demolish all places of defence, sauing those that be in the hand of the Soueraigne power; this onely remaineth, whether we know in the Barrous Warres, the Rebels, vpon the naturall strength of the place and aboundance of prouision there, resorted, as into a Fastnesse, and to which purpose it might serue againe, if God and the wisdom of our Gouvernours were not watchfull at the Helme. What should I speake of the health of mens bodyes, where there is no Element good. The Aer Nebulous, grosse and full of rotten Harres; the Water putred and muddy, yea full of loathsome vermine; the Earth spuing, vnfast and boggie; the Fire noysome turfe and haffocks: such are the inconueniences of the Drownings.

But if a man would attend the manifold and great profits of Drayning, it were not hard to muster a royall Army of them. Consider first the quantitie of the Fen-Leuels valued at 500000 Acres. Mr Camden accounts it from the edge of *Suffolke*, to *Waynslet* in *Lincolneshire*, 68 Miles, and that is by the Stringe; but if you reckon the Bow of the Fenne which runneth vp on both sides *Witham* till you come within a Mile of *Lincolne* (as rotten a peece as any of the rest) we may well call it 80 Miles in length; in bredth it is much 30, more 20, seldome so little as 10 Miles: a goodly Garden of a Kingdome; yea, a little Kingdome it selfe: as much and as good ground, it is supposed, as the States of the *Low-Countries* enioy in the *Netherlands*.

For the riches of the soyle if it were gayned from the waters, much may be said. Compare it with high ground, who will not preferre a leuell Medow? Compare it with the grounds in the same tract which lye but a yard higher then it; ordinarily let for 20. shil. an Acre and vpward: not about *Ely* and other good Townes onely, but at *Thorny-Abbey* my Lord of *Beaeford* lets betweene 3 and 400 Acres of rising ground vpon which the Abbey stands, for 300.li. *per annum*, whereas the rest of his Lordship of *Thorny*, containing 16 or 17000 Acres of drowned ground, is esteemed as it now lyeth, of little or no value: yet it appeareth by the Historie of *William* of *Malmesburie* (vouched by Mr Camden) who liued

about

the drayning of the Fennes.

about 1200 yeeres since, that in his time it represented a very Paradise, for that in pleasure and delight it resembleth Heauen it selfe; in the very Mari-
shes bearing Trees that for their straight talnesse, and the same without knots,
strive to touch the Starres. A Playne there is as euene as the Sea, which with
greene grasse allureth the eye: so smooth and leuell, that if any walke along the
Fields, they shall find nothing to stumble at. There is not the least parcell of
ground that lyes wast and void there, here you shall find the earth rising some-
where for Apple-trees, there shall you haue a Field set with Vines, which either
creepe vpon the ground, or mount on high vpon poles to support them, &c.
For in those dayes Vineyards were verie frequent in England. The like
may be said of the Abbey of Crowland, of the great Lordship of Whittle-
sea, and of all the rest that consist of part dry and part drowned Land;
yet those dry & drowned Lands are of the same nature, and where there
is any difference, the drowned is the richer, as appeared in the two ex-
traordinarie dry yeeres 1619 and 1620, when the edges of the drowned
Fenne being dry, yeelded twice as much grasse as the rising grounds did.
I shall speake of a strange thing, yet was it related by a Gentleman intere-
sted in the place and of good credit: *Borough* great Fenne containeth
about 7000 Acres, this Fen is vsually so much surrounded, that the dry
places and all, are not well able to beare the Inhabitants Cattell: in those
two yeeres it was all dry and yeelded such abundance of Foather, that
they receiued for a great part of Summer, 50. li. a day for the ioysting of
Cattell, as they call it, out of the high Countreys. The like may be ima-
gined to be the condition of all the rest of the Fens, especially if the
ground be smooth and free from Haslocks. I will giue you an instance.
There is a banke in *Thorny* of a Mile long or more, cast vp out of two
Draynes of the most mirie Fens, which lying somewhat high, as being a
Horse-way from *Thorny-Abbey* to *Peterborough*, is growne into verie
fine and feeding grasse.

And here to proue the Richnesse of the Fen-soyle, let it be obserued,
that where water stands all the Spring in barren Land, there will be no
grasse at all; not so much as where for want of raine the Sunne burneth
the soyle: and this is a certaine argument of Sterile or leane Earth. But
where though the waters stand, the Earth notwithstanding bringeth
forth Fruit, it is an argument of a fat and lustie soyle, and so much the
fatter by how much the Fruit is courser and larger; for all grounds
that will afford nourishment to Grasse, will not suffice sap enough for
Sedge or Reed; but on the contrarie, that which will beare Reed or
Sedge in any quantitie, is able to yeeld sap enough for abundance of
Grasse.

A discourse concerning

Grasse. So great a quantitie therefore of rich Land being gayned, would meruailously increase & support the multitude of his Maiesties subiects, wherein consisteth the glorie and strength of a Kingdome. Adde hereto the augmentations of his Highnesse Reuenews (for there are in the Fen, if I remember a right, 16 Mannors belonging to the Crowne on the South-side of *Boston*, besides the great Honour of *Bullingbrooke* on the North, containing about it by estimation 60000 Acres of Fen-Land, which was lately let for 18.li. a yeere to *S^r Vincent Skinner*) besides his Customes, Subsidies, Prouisions, Casualties, &c. What should I remember the profits which would accrew to the Common-wealth? the abundance of prouision for victuall, Flesh, Fish and whit-meats, the breed of Horses seruiceable both in Peace and for Warre, the rich and necessarie Merchandizes of Wooll, Hydes, Tallow, Hempe, Rape, and such like; the transportation of the commodities of the Countrey from place to place for the vse of the neighbour-parts; the ease of Trauellers, who now are faine to make compasse iournies to auoid the ouerflowings; the conuoy of his Maiesties Armies if occasion should require, are all publike profits, and of excellent consequence to the King and kingdome. Such also would be the restoring of the Navigation vnto the Townes of *Wisbich*, *Spalding* and *Wynsler*, and from thence vp into the Countreys. These are publike benefits: and for priuate the drayning would encrease the renew of many Corporations, both Ecclesiasticall and Ciuill, and of many his Maiesties particular Subiects, as well Lay-men as Rectors and Vicars of many great Parishes which now afford the Incumbents verie small meanes. There is one other great commoditie which a drayning will produce worthy to be insisted vpon, and that is the securing of Sheepe and other Cattell from the rot. For it is a true thing, that when the Fens yeeld most pasturage, then they doe the most milchiefe to men in their Sheepe and Cattell, thence is the common saying of the Countrey, *From the Farme to the Fenne, from the Fenne to Ireland*. The reason is, because the Fen is neuer so dry, but there are many watry plashe, and much rotting Spire-grasse in it, where-with the Sheepe are vsually tainted in the Summer-time, and whereof they dye in the Winter, if men be not carefull to sell them to the Butcher before: if they be so prouident, then is the Countrey and Citie too, fed with wholesome food. As for other Cattell, together with the wet Grasse they slap vp such an abundance of small Stiklebacks, that when they dye of the rot, or be killed for vse, their Mawes will be found full of them. Contrarie-wise, in the Marishes beyond *Wainslet* in *Lincolneshire*, and such like, where

the drayning of the Fennes.

where the grounds be seuered and trenched, it is hard to find a poore man, though they sit at great rents, for their Cattell are alwayes found and thriving, and therefore euer merchandable: or if they come to a mischance, yet fit for food. And that this was the opinion of all the Commissioners of Sewers, appeareth by the Sessions at *Peterborough* the eighth of *September*, 1619, there being present the Lord Bishop of *Peterborough*, the Earle of *Bedford*, *S^r Francis Fane*, and 25 other Knights and Gentlemen Commissioners of Sewers, assisted by a multitude of the Countrey. They agreed and concluded, *That by a drayning, an apparent great profit would arise to the Countreys and Owners of Lands, & that it would be without preiudice publike or private.* And thereupon did decree the designe should be proceeded in, and determined to giue all lawfull ayd & assistance thereto, according to the extent of the Commission of Sewers. Which also was confirmed the 23 of *September* following at *Ely*, and the 24 at *S^t Iues*. And the businesse was prosecuted at *Cambridge* the 15 of *Oct.* and at *S^t Iues* and *Hunting.* the 16 of *Oct.* where there was 20. shill. set vpon euerie Acre for the accomplishment of the worke.

If men descend vnto particular obiections, then must seuerall answers be giuen them. First therefore it is obiected, that they find lesse burthen of Foather vpon the ground in dry yeeres then in wet. I answer, it must be confessed that ground which beareth Reed or Sedge will not be so fruitfull if it be dry, because such ranke trash requireth a great deale of moisture, but when through want of such store of moisture it improveth into grasse (as in a yeere or two it will certainly doe) then a little moisture will suffice, as we see in ordinarie Meddows. It will be vrged that euen in Meddows ouerflowings will doe good. It is true, if so be the water remaine not long vpon the soyle: but to be surrounded, or to lye in the fuds, as we say, three quarters or halfe a yeere more or lesse, doth mischief not helpe the ground. I appeale to the Countrey if there were not in the yeere 1619 many thousand loads of Foather gotten where scarce euer any was had in the memorie of man. Witnesse the great stacks which were then seene all along the wild Fennes, as thicke (to mens seeming that road aloofe) as shocks of Corne in a Corne-field, and that of reasonable good Grasse. For if the water be drayned, and the cold moisture removed from the root of Reed-ground, that Reed will in one summer returne into Sedge, and that Sedge shortly into good Grasse, of which there hath beene abundant experience throughout the Fens in the dry yeeres 1619, and 1620.

A discourse concerning

But the drayning some say will decay Fishing and Fowling. I answer, it is neither possible nor profitable to drayne *Porsen* in *Crowland*, or some Deepes in the East-Fen beyond *Boston*, or the Meares of *Whittlesea*, *Ramsay*, &c. which be the chiefe places for Fish and Fowle. For other Fens there are no Fish or Fowle taken in them, but onely in the Riuers or Draynes; and those will be both more in number and more enlarged after the drayning, and the Fish and Fowle better contained in them, and so more easily gotten: For now the water ouerflowing all, the Fowle are so dispersed, that men cannot come at them (for there is not, nor must there be any shooting in the Fen) and the Fry of the Fish is lost or deuoured in the Reed or Sedge, which in the deepe Riuers and Draynes would be secured. But all this is not considerable in respect of the great benefit that will be made of Grasse in so large proportions of excellent Land.

It will againe be obiected, that although the drayning will be beneficiall to the Lords and Owners, yet the poore Commoner shall be in danger to loose his Common by the incroaching Lords, or at least when such Common-Fens are recouered and secured, the rich men will so ouercharge them with Cattell, that the poore man shall not be able to make any benefit, where now he getteth a poore liuing, partly by the Pasturage of a few Cowes, partly by his labour in Fishing and Fowling, which labour the rich man will not take. Now saith the poore Fen-man, we haue euerie yeere an Order brought from *Northampton*, which layeth a Law vpon the rich, that they oppresse not the Commons: he meaneth the confluence of waters which drowne all. This is a great obiection and of consequence, and hath two parts. To the first part concerning the Lords incroaching vpon the Commons, I know not what prouision the State will thinke fit to make: but there is already a good case taken for it in that verie Act of Parliament which was made for Appropriements in this kind, the 43. *Eliz. Cap. 11.* the words be these, *Provided always, and be it enacted, That this Act, nor any thing therein contained, shall not extend to the impairing, diminishing, letting, taking away, or extinguishing of the interest of the Commoners, or any of them, or of the Lords or Owners of the Soyle, in or to any part of the residue of the Wafts or Commons which is not, or shall not be set forth or assigned to the Vndertakers: Nor to any franchises or Liberties, or Waife, Stray, Leete, Law-day, nor other Liberties to be used or taken in the part so to the Vndertakers assigned: But that as well the Commoners, as Lords and Owners of that Soyle shall and may enjoy their Commons in the residue thereof.* To the second part of the obiection that
rich

the drayning of the Fennes.

rich men will ouer-charge the Common when it is secured, and so oppresse the poore; I confesse it is a common calamitie in all vntinted Commons, and deserueth a great deale of wisdom and care in the State to preuent it, especially in such rich Soyles. Two helpes there are: One, that the Commoner who dwelleth vpon, or neere the Common will make good shift if the rich man dwell but a Mile off, as in the Fen it will often be. But if the Land which is set out for the recompence of the drayning be let, part to the poorer sort at reasonable rents, then the poore man hauing seuerall grounds (adioyning to the Common) wherein to succour his Cattell at need and whereupon to get Foather for them, he may shift with his rich Neighbour so much the better. Other helpe I know none but an apportionment; which in the Fen will be more difficult then in other vntinted Commons, because in one Fen many Towne-ships haue interest of Common; and yet there will be enough for all if it be well ordered.

It is farther obiected, that if the drayning should succeed there will be then as much want of water, as there hath beene formerly too much. I answer, that when the Riues and Draynes are deepened (which is a thing must be performed) they will hold a world of water more then they now doe; and it will ordinarily be held vp also to a sufficient height by the Works for the drayning, except when a Flood is feared, which if it come, there will be water enough and two much; if it come not, yet within a few houres, if the Current of the water at the Workes be inhibited, the Countrey will be full enough: beside, the partitions of the Land assigned for recompence of the drayning, will in a short time make Ditches enow to containe more water then the Cattell in those parts will vse: and by common intendment, all good Husbands will make Ditches for diuisions in their owne grounds, and Sluces to detaine or let goe the water at their pleasure.

Finally, some will say they are many times drayned from Heauen and therefore need not mans helpe. True it is that God Almighty hath taught them by the experience of some dry yeeres, though rarely, the difference between a wilderness of water & a goodly greene Meddow: to lead them by sence (who are hardly governed by reason) to discerne what may be best for themselves and their posteritie: of which great document if they make sinister vse, vainly fancying to themselves that which is to mans reason impossible, they must be content to be punished according to reason. That is to say, whereas such dry yeeres shall haue drunke vp the waters, if not of the Riues, yet of many of the Draynes,

A discourse concerning

which thereupon are growne vp and pestered with weeds and rubbish, it followeth necessarily, that vpon the next confluence of waters into that Leuell, the Sewers which contained them being stifled, they haue bred a greater and more fearfull Inundation.

Beside these there be certaine Tacite and silent obiections which some are either afraid, or ashamed to vtter, and yet are obstinately gouerned by them. I will name but two: The one is, the losse of their Land: The other is, meere enuie; or if you will giue it a gentler name, Private Emulation. The former I may more boldly auouch, because it pleased his late Maiestie to fasten vpon it when he gaue gracious audience to a hearing of this businesse in the yeere 1619. viz. The Lord or Owner had rather be said to be Lord or Owner of 1000 Acres though they be scarcely worth to him 1000. shill. in the yeere, then part with 500 to make the rest worth 500. Angels by the yeere: In like manner the Commoner. Reason for this if they could giue any, it is likely I also were able to render some, but in truth I cannot, nor any shaddow of reason, but as a fullen Bird that is taken when it is old will rather dye then feed, so such Fen-men; not considering that though the allotment for the reward of drayning should be in Land, yet the expence being necessarily to be in money, much of the Land must be sold for supply thereof, which they that are able and willing may purchase before any other, to keepe their inheritances entire, being exceedingly improued. For Emulation, it is so notorious, so diffusive a vice amongst them, as a man may imagine it to be bread there, as *Hydra* was in the Fen of *Lerna*. I will put a case. *John a Stile* hath 2000 Acres in the Fen worth him haply 50.li. a yeere, and no other Liue-load. *John a Nokes* hath 200 Acres in the same Fen worth 50.li. a yeere; but besides he hath an Inheritance of 300.li. a yeere, and thinks himselfe, and so is, a Gentleman of some reckoning, the other is but a poore man and liues hardly. When the question of the drayning of the Fens comes, *John a Stile* is glad, and promoteth it all he may: But *John a Nokes* his rich Neighbour (what saith he) shall *John a Stile* be a better man then I, who hath bene alwayes glad to shroud himselfe vnder my wings, that I cannot, I must not endure: For if the Fen be drayned, his Land may be worth 500.li. a yeere, though he part with one halfe for the drayning: my improuement will be little worth, no drayning therefore by my consent. But enough in an vnpleasing Argument, it being against my disposition to haue but touched so harsh a string.

Hauing thus long held the Candle to the Sunne, that is, proued what

the drayning of the Fennes.

no reasonable man can denie, that the drayning of the Fens in the fixe Countie will be both honourable and profitable to the King and Kingdome and many particular persons, and answered the obiections which some ignorant or wilfull people stand most vpon, giue me leaue to proceed to the second Question, that is, whether it be feazable or no.

First, Let it be for the time admitted not granted, that this great worke cannot be accomplished; I aske what shall the Countrey loose? For they that vndertake it, must haue no benefit till the worke be done. If it be not done, they indeed loose both labour and cost, the Countrey looseth nothing, but on the contrarie must gaine much, For it cannot be indeauoured that all the Fens should be drayned, but at leitt some must necessarily reape great benefit, all some, by such indeauour. But the wisdome of the Parliament thought the worke feazable, and that not long since to wit in the last Parliament of *Queene Elizabeth*, the words are these. *Wherein it is apparant to such as haue trauesled in execution of the Commission of Sewers in the Isle of Ely and Countie adioyning, that the Wastes, Commons, Marishes, and Fenny-grounds there subject to surrounding, may be recovered by skilfull and able undertakers.* And the Commissioners of Sewers at *Peterborough* the 8. of *September*, 1619, were resolu'd of the possibilitie of the same. But what are the reasons men thinke the Fens cannot be drayned? Forsooth because many and great men haue attempted it and fayled: as if all wisdome and insight were confer'd on great men. It may be their mistes haue taught other men wisdome: there is no greater aduantage then to learne by other mens losses. Hence it is that we see many things performed euerie day which our fore-fathers thought bootlesse to attempt: besides, the causes of mischiefes and so the remedies are often-times not perceiued till the mischiefe be perfected. But will you giue me leaue to render you also a reason why those many and great men failed in their enterprises? I hold it for a certaintie, that it is vtterly vnpossible to drayne, or fruitfully to recouer any notable part of the Fen vnlesse all that Leuell of Fen whereof it is a part, be ioyntly recovered. And this hath beene abundantly proued by the miscarriage of all particular workes, except Marshland, and that is gayned by imbanking, partly because it lyeth on the out-side of all the rest next the Sea and adioyneth vpon the excellent out-fall of *Linne*; partly also, because as much cost hath beene and is bestowed vpon it, as the verie Soyle is worth, for it now costs about 3000.li. a yeere to maintaine the Bankes, and so the medicine hath beene as ill as the disease. Some-thing might be said also for *Holland-Elbow* by South of

A discourse concerning

Spalding, which is bettered by the Bankes, but neither recovered nor secured, and likewise of *Waldersey* and such portions. But for the drayning of all together, my Lord *Popham* of worthy memorie may be an example somewhat to stay mens minds from thinking it so vtterly impossible, who being a wise experienced Gentleman, and of better estate then that he should be contented wilfully to cast it away, yet was verie desirous to haue aduentured vpon the drayning of all *Cambridgeshire*, and the Isle of *Ely*, and surely had put it to the hazzard, if he had liued but two yeeres longer. But if I may speake without disparagement to his wisdom, that course which he intended (for I haue seene his Card and the wayes he intended to worke) would rather haue bettered much, then wonne or secured any.

After his time and not aboue 13 or 14 yeeres since, his Maiestie and the Lords were so afflicted with Petitioners out of those parts, all imploring helpe against that common calamitie (whereof they are now againe made sensible) that it was thought fit by the State to send *S^r Clement Edmonds* to take view of the Countrey, being assisted by the Lords and other Commissioners of Sewers. In which his Perigrination (for it was an vncouth and wild way he went, and a long time he spent in searching into euerie nooke and corner) he obserued with all diligence whatsoeuer might inuite him to thinke the drayning feazible, or discourage him from it. At length in the returne of his Report to the State, he resolueth that it may be done. Yet not probably by any consent of the Countrey, or such as are interested in the Land, but rather by others. His reasons I forbear here to touch vpon. After that, the right noble Patriot, the Earle of *Arundel*, by direction from King *James*, and the aduice of the Lords of the Councell, made a iourney into those parts to promote the generall drayning, as a businesse of great honour to his Maiestie, with whom ioyned the honourable and worthy Commissioners of Sewers, & by an vnanimous decree designed vnto his Maiestie 120000 Acres of the Fennes to inable him to accomplish so great a work. Which Decree his Maiestie ratified by his Royall assent and acceptation, and would certainly haue performed the worke Royally and Really, sauing that he was at that time and vnto his death, taken and kept off by his weightie and important affaires of State. Since whose decease, his Royall Maiestie that now is, hath greatly desired that the said worke might be proceeded in, and for that purpose, finding that he could not presently relieue the great distresse the Countrey is now in by reason of the Inundation, hath remitted vnto the said Commissioners the fore-named

the drayning of the Fennes.

med Decree to inable them to provide some other more expedite way for the Countries reliefe. By all which it appears that by the iudgement of King *James*, of the Lords of the Counsell, and the Commissioners of Sewers, the worke is feazable and greatly desired. For the Soyle I doubt not it is well disposed to a drayning, both because it hath a sufficient fall to the sea, and because the Sewers (though with some difficulty and greater charge which yet the profit will farre surmount) may be in a short time sufficiently eased. That the Fennes have a Competent fall to the sea, it is argument enough because they at length empty themselves into the Sea, which the deepe Meares doe not. Whether that fall bee sufficient to emptie them sooner and with a stronger Current then now they have, is the question. I leaue the particular fall of euery leuell how many foote it hath to the high water marke to farther examination; but it is euident that from the heads of the seuerall draynes vnto the low water marke there is fall sufficient.

It is also euident that Deeping Fenne lyes lower then *Thornie*, *Burrough* or *Croyland* Fennes (whence also saith Mr. *Cambden* it hath his name) yet hath the Earle of *Exeter* made a conueyance of the water from Deeping Fennes vnder *Spalding* riuer to the sea, and that to some good effect if the out fall at sea were kept open: whence it followeth, that there is a fall into the Sea out of the lowest Fennes, and a descent much lower then the bottome of *Spalding* riuer; and yet the Flood at *Spalding* is not one houre in ordinary Tides, and consequently the Ebbe there aboute 10. From which obseruation it may bee gathered, that a fall may bee had from *Spalding* to the low water marke of twenty foote, which fall being improued by skilfull workemen will produce a strange effect. The like may be said of *Wishich*, *Clowes Crosse*, *Salters Load*, &c. But how that must be done, and how the inconueniences thereupon ensuing are to be preuented is the very *Elusium sacrum* the mystery of drayning, which belongeth not to this place. For the out fall at *Linne*, no man maketh question of it, onely the difficulty will be thought to be in the placing of the workes, which will indeede bee chargeable but of necessary and excellent vse. I would haue it also considered that within these few yeeres the Tide from *Spalding* did flow vp beyond *Crowland* and neere *Thornie*, where as now the Tides are seldome scene aboute *Spalding*; an euident argument that the Fennes grow euery yeere worse then other. For the out falls of *Wishich* and *Spalding* being daily more and more choaked with sands from the sea and mudd out of the draynes which cannot now passe to sea, and the riuers stifled with weedes for
want

A discourse concerning

want of a current; it comes to passe that the whole Fenne is now vnder water; though this present drought hath brought all other riuers of the Kingdome to a very low ebbe. Which mischiefe if it grow but a few yeeres more (as it will certainly doe if it bee not preuented) the whole Leuell will be drowned perpetually and become of no vse at all. Besides, those waters growing deepe in so large a leuell, and being increased by a Flood; a storme of winde will haue so much water to worke vpon, that it will rayse billowes as in a sea, the force whereof neither the bankes of Marsh land nor of other inned grounds, nor houses, nor bridges will bee able to resist. What then will become of the fishing and fowling (their principall commodities) when the game is disperfed so wide that it will not be worth the labour and charge to goe about to take them? What will become also of the multitude of poore people, who now liue (though very meanely) in those Fennes by taking Fish and Fowle, by gathering Hassocke, Reede, &c. and by transporting by their Boates passengers and commodities too and fro? Finally the Towneships and particuler men that liue now vpon the Hards, will be confined as into small Ilands in an open sea: and euen those Ilands will be daily lessened by the billowes which stormes will driue against them on all sides. Adde hereto that the Meares (and *Whitsea*. Meare saith Mr. *Cambden* is six miles long and three miles broad) which haue of late yeeres much enlarged themselves, being yet more deepned and their waues rayfed by stormes and raging like the sea, will dayly swallow more and more of the light Fenny soyle bordering vpon them, and so at length may grow to an immense both longitude and latitude, and make it truly *Circumfusa Palus*. But to insist a little more vpon the fall or descent of the Leuell of the Fennes into the sea; it appeareth that the riuer of *Peterbrough*, (whose naturall Current, as it is most plentifull, so his excesse is most inuadant) which should fall out at *Splading*, or at *Wisbich*, or both, if it had vent, passeth now on to *Whitsea* Meare, and so runnes through the whole Isle, and meeting the riuers of *Onse*, *Grant*, *Brandon* and *Stoke*, ouerflowes all, and falleth out leasurly at *Linne* aboute threescore miles from his aberration; in which tract running vpon a leuell and in small and cloyed draynes, it makes the greatest deluge: beside, the windes hauing the aduantage of the waters when they are out, with greater violence then any banke made of loose earth can resist, carry them whether they list vpon the face of the whole Fenne, because they haue no such strength of Current as will violently lead them away: so that if the winde bee Northerly and stiffe, it beateh them toward *Linne*, and then the Fenne is sooner drie;

but

the drayning of the Fennes.

but if it blow out of the East or South, the whole masse of waters is carried from *Lin* ward, & finding no other out-fall, continues vpon the face of the Fenne till those winds remit, and the waters fall backe to *Linne*, where they find no very free discharge because they are holden vp by the Tide 12 houres in 24. and thence it comes that if any Flood happen in *Aprill* or after, the Fennes are lost for that whole yeere.

More concerning the possibility to drayne the Fennes need not bee said, this being no place fit to discouer the manner of the Workes or the places of Aduantage whereon to set them, or the old or new draynes that must leade vnto them. Onely thus much I thinke fit to intimate, that there is a great difference betwene these Fennes and the Leuels in the Low Countries. For there the sea is higher then the Land, and therefore their onely way is by Banking to keepe out the sea, and then by mills and other deuices to heaue out the water: which worke of banking though it be exceeding chargeable and dangerous for breaches, yet they are constraind to trust to it, because they haue no fall to the sea, and beside they are so scanted for Land that the value thereof doth counteruaile that excessive charge: but with vs in the Fennes all is otherwise. For we haue a fall to the low water marke of more then twenty foote to empty the waters into the sea. Beside, we haue abundance of riuers and draynes to lead them vnto the seuerall out-falls which may and must bee deepned; but we haue no firme earth in place to make bankes, nor sound ground to place them vpon. Besides, the Land to be gained will not defray that charge neither (if all the trust be vpon banks) can it be secure to encourage men to inhabit, build, plant and stocke the ground to be gained, because we haue had experience that some few breaches in Marsh-land and other banked grounds haue brought great deluges and destruction of houses, Cattle, &c. many of which are not yet regained, others held good at an excessive charge, and vnder desperate dangers.

There is also an other danger in Banking procured by a small contemptible Vermine, they be Water-rats, which make their holes in the banks close to the water when it is at the shallowest in infinite number, and feeding vpon the fric of fish, doe multiply like fishes. These burroughs deepe into the bankes, which being made of light earth, when the waters do rise and are beaten into them by the winde, many of those holes are worne into one, and so the whole banke is in no long time demolished; a mischief which it is impossible to remedy, & yet such as will render all Banking insufficient to keepe out the water, much more vn safe for men to trust vnto if they should be desirous to inhabit neere, them or vnder

A discourse concerning

their protection. Finally, the cure by Banking is impossible for our Fennes, vnlesse the water could be taken into those banked draynes before it fall into the leuell of the Fennes, that is to say, as the riuers descend from the high ground; otherwise the waters can neuer rise to make vse of the height of such bankes, but will rather returne and drowne *Peterborough, Deeping Huntingdon, &c.* Therefore the way must bee to begin at the Out-fals and there to repulse the salt water and sands, and by taking aduantage of the fall to low water marke, to conuey away the fresh and the sand and other silte which now choketh the riuers and draynes.

Besides these arguments against trusting to Bankes in a case where in great aduentures of mens persons, habitations and estates are to be borne; there is another argument against entertaining of Strangers to performe this work, for this Banking is the conceite of Strangers who are accustomed only to banking at home. And this is an argument first of Honor, secondly of security, thirdly of profit. For the matter of Honour: Now, ifeuer, we haue reason to insist vpon it, when the reputation of our Country is brought into competition with our neighbours, who were wont to haue their dependance vpon vs, and reliefe from vs. Is the old Actiuitie and abilities of the *English* Nation (who in former times were esteemed the greatest vndertakers in the Westerne parts of the world) growne now so dull and insufficient that we must pray in ayde of our neighbours to improve our owne Demaynes? The Duke of *Venice* is said to marry the sea, as if he had with it but *diuisum Imperium*; wee haue bene alwayes Lords of the sea, and our Common Law hath adiudged the sea to be part of our Kingdome, shall wee suffer that Regality to become obnoxious to Strangers, and not that onely, but the fresh waters within our Continent, as if our selues were not able to bring them into order? Surely our great plenty and abundance of fruitfull Land hath bene hitherto one cause why this improvement hath bene neglected: but of late the blessing of peace hath so multiplyed our people vnder our last two peacefull Princes, that we haue transplanted many Colonies into *Ireland, Virginea, Bermuda, St. Christophers, New England, &c.* and beside hath stirred vp men at home to gaine much rich Land from the seas, and in particular to attempt vpon this surrounded Leuel, wherein that they haue not hitherto preuailed, hath not bene want of skill, or will, nor yet of indeauour. For diuers worthy men haue appeared in the vndertaking, the last and worthiest being our late Soueraigne Lord of blessed memory, who thought it no dishonour to declare himselfe an Vndertaker herein, but being translated hence, hath left

the drayning of the Fennes.

*The Honour of this Worke to Crowne the Raigne,
Of his deere Sonne our now dread Soueraigne.*

For matter of security; shall wee esteeme it of small moment to put into the hands of Strangers three or foure such Ports and Harbours as *Linne, Wisbeach, Spalding* and *Boston* will be when the out-fals shall bee opened to Low water marke, and permit the Countrey within and betweene them to be peopled by ouerthwart neighbours whose strength and vndertakings begin to grow formidable; or if they quaille themselues must giue place to our most Auncient & dangerous enemies, who will be ready enough to take aduantage of so many faire Inlets into the bottom of our Land, lying so neere together, that an Army landing part in each of them, may easily meete and strongly intrench themselues with wals of water and drowne the Countrey about them at their pleasure? This very thing was objected by a worthy Patriot in a late Parliament, wherein a bill was preferred for the admitting of Strangers to vnder-take this Worke, and thereupon cast out.

Finally, if nothing were considerable but the matter of profit, would it be thought fit to giue so great a portion of our Land as the third part of that *Leuell* to Strangers to empty themselues into, and leaue our owne Countreymen with so great trauell, charge and aduenture to seeke for seates abroad in remote parts, when we may comfort both them and our selues by placing them at home? Neither yet would I be vnderstood to be so enuious to Strangers; as that I had rather the water then they should possesse the Land; but the question being whether should be preferred to the Vndertaking of the worke, Strangers or men of our owne Countrey, I am out of doubt that no true *English* man will be scrupulous in the choyce. Yet I doe ingeniously acknowledge that the industrie of some of our neighbours, especially the Dutchmen, deserueth commendations and imitation for enlarging themselues into the sea, especially in, and about *Amsterdam*, and securing themselues from the sea by costly and ingenious deuices; but such deuices are not proper for our busines, which is to be performed in a farre different manner, the error leading vs directly to the remedy which is meereley Naturall: for Nature hath giuen to all riuers and waters as well their courses, issues and out-fals into the sea as their heads and springs; and by the former hath as well provided for the vse of man as by the latter. This guidance of Nature if wee follow, and adde Art as a hand-mayd vnto it, wee shall by remouing the cause auoyd also the effect; and by consideration how the mischiefe hath growne, learne to preuent it in the future; wherein the sparing of cost is

A discourse concerning

no frugality. But if it be questioned, Whether those *Englishmen* that offer to aduenture their estates and the reputation of their skill, be able to accomplish the businesse? the answer is, That beside that they can demonstrate their abilities, What pra'judice can it be to any man to be an idle spectator, whilest they expend their money and exercise their skill, they requiring no recompence till the Worke be performed?

The third and last Question is, How a Competent Reward may be apportioned for them that should vndertake so great a Worke? This indeed hath beene the great and maine Impediment of the Drayning of the Fennes, for many yeeres; most men interested, being vnable to disburse Money, and also vnwilling to part with any of their Land, of how little value soeuer it hath beene vnto them, or how great soeuer the improvement of the remainder might be: or if some were willing, yet the minds of the multitude haue not beene vnlike the Waters of the Fenne; which not being contained within due limits, but dispersed abroad ouer the surface of so great a Leuell, are easily interrupted in their course by the slender opposition of Flagges and Reedes: euen so, these mens minds not being restrained by Authoritie, nor guided by rule of Reason, doe stray into seuerall Opinions, and receiue Impediment from Oppositions as slender as those Weedes: some of them being not ashamed to alledge, that by gayning of Grasse, they should loose their Reedes and Sedge, not considering the difference of their values. But of late, receiuing information from the King and his Councel, and the Commissioners of Sewers taking into their consideration, that the Wisdome of seuerall Parliaments haue thought fit to giue a part of such Lands to those that should improve the whole, and pondering how great the benefit of such improvement would be to them and their posteritie, haue (not many yeeres since) fallen vpon an excellent course to encourage men of skill and abilitie to embarke themselves in that Designe. Whereupon, after a Tax layd vpon the Lands of that whole Countrey by the Acre, to enable the Commissioners of Sewers legally to conuey part thereof to beare the charge of aduancing the whole, King *James* of blessed memorie declaring himselfe to be the Vndertaker, a Decree of Sewers was enacted at *Cambridge* the 20. day of *February*, in the yeeres of the Reigne of our late Soueraigne Lord King *James*, of *England*, *France*, and *Ireland*, the 19. and of *Scotland*, the 55. Whereby was designed to be granted to his Maiestie for the supportation of that vast Charge, 120000. Acres of the Fenne Lands, to be conueyed vnto his Maiestie, his Heires and Successors: that is to say, out of euery particular part, a proportion answerable to the quantitie

the drayning of the Fennes.

quantitie of the Land, and the benefit that should redound vnto the Owners thereof, so that in the whole it should accomplish the said number of 120000. Acres, as the Commissioners of Sewers, after a particular survey, should thinke fit to allot the same. Which Lands notwithstanding, the King was not to haue any interest in, or possession of, vntill eyther the whole Fennes, or some notable part, were effectually Drayned, and so adjudged by the Commissioners, or a competent number of them. The reason why this Decree tooke no effect, was the many and important affaires of State, wherewith his Maiestie was exercised the whole time of his life, after the said Decree was enacted. Whereupon all the good intentions and preparation, both on the part of his Maiestie, and the Commissioners fell to the ground.

Since which time, those Countries hauing beene grievously afflicted with the continuance and encrease of Inundations, they are now by the hand of God not led onely, but constrained to seeke some effectuell meanes for speedie reliefe. Whereupon some of them (as men readie to perish by the Waters, are wont) haue reached out their hands, to take hold vpon such weake and defectiue helpes, as the examples of their predecessors haue left vnto them, that is to say, vpon particular Workes of Goates, Draynes, Bankes, &c. not duly weighing, how they haue formerly fayled those that haue layd hold vpon them: Witnesse the costly Draynes of *Morton Bishop of Ely* called *The New Leame*; *Clowes Crosse*, *Popham Mea*, *The Londoners Loade* and many others; and the many miles of Bankes about *Deeping*, *Thornie Walter Sea*, *The Londoners Land*, and infinite others: all which are now of little or no vse, though the charge of them hath beene so great, as if it had beene bestowed at once vpon the generall Worke, would haue gone farre toward the accomplishment of a Reall Drayning, which long before this time had made a rich Improvement. Others there are, who finding the Disease of the Fente to be like the stopping of the Vrine neere the fall of the Kidneyes; from whence being returned, it first filleth vp all the veins of the body which before were neere full with bloud, and then drownes the Patient in his owne Water: of which Disease there is no possible Cure, but to remoue the Impediment neere the Kidneyes, so to regayne the naturall Out-fall. In like manner, the Waters that annoy the Fennes, doe first fill the Riuers and Draynes; at whose issues being returned backe by Impediment, they ouerflow and stifle the whole Body of the Fenne: of which Disease, there is no possible Cure, but the opening and securing of the Naturall Out-falls; at which, the whole Body of the Fenne will equally and speedily vnburthen it selfe,

A discourse concerning

and so returne to that pristine Condition, so much extolled in the Monuments of Antiquitie. This then being the onely way for Cure of that grand Disease, vnder which many thousand Acres of Ground, and (which more is) many thousand People doe languish, those onely shall approue their Iudgements in this Cure, who themselves incline and labour to incline others to further by Art that Naturall Remedy.

Yet how Naturall soeuer this Remedy be, it cannot be imagined that so vast and enorme a quantity of Land as these Leuels do containe can be drayned without a huge expence; and the preuention of the same mischiefe for time to come by apt Works will greatly increase if not double the charge, beside the necessary provision to maintaine, nay to better the Nauigation by deepning the riuers, &c. Adde hereto the aduenture of so great summes as are necessary to be expended in these Workes; whereof although such as shall vndertake the businesse, well knowing their owne wayes and meanes are (as behoueth them) secure, yet their assistants (for without aduenturers no private mans abilitie is able to effect it) relying vpon their credit and skill, haue reason to require no Litigious, but a Legall and pregnant assurance of a valuable recompence which being conformed to the decree for the 120000 Acres before recited will be indifferent both for the Aduenturers and the Owners, as it seemeth was concluded by the Commissioners before they enacted that Decree.

Here it may be objected, that many Noblemen and Gentlemen interested in those Leuels, will choose rather to disburse some summes of money for their parts to keepe their Inheritances entire, then part with any of their Lands. The answer whereunto is, that a booke may be made according to the Custome of Aduentures, wherein euery man that listeth may write such a proportion for his aduenture as will intitle him to so many Acres as vpon the survey shall be set out of his Land to make vp the number of 120000 Acres. Out of which also it must be considered, that a good proportion must be set apart for the perpetuall securing of the workes to be effected, as the Commissioners of Sewers in the forenamed Decree haue iudiciously provided.

Thus much being collected out of loose papers which had lien long by the wals, and tyed together with some Additions out of new observations, is presented by a friend to this incomparable designe; which if it be effected, will be registred to all succeeding ages, and haply this may conduce somewhat thereto, with which if the Author be honoured hee is well payed, but if he be remembered to haue cast in his Mite into the Treasury he will exult. H. C.

